INDEX
to volume 15 jan-dec 1988

authors

Adner MM: The Boston Marathon medical care team: ten years of experience, Jul, p 98
Allan DG: see Reid DC, Jun, p 142
Andrews JR: see Schemmel SP, Sep, p 133
Apple DF Jr: Basketball injuries: an overview, Dec, p 64
Araujo J: see Makalous SL, Apr, p 139

Belhobek GH: see Liebert PL, Apr, p 87
Benade AJS: see Cohen JC, Aug, p 49
Berger P: see Maywood RM, May, p 81
Bergfeld JA: see Lombardo JA, Mar, p 85
Bernauer E: see Superko HR, Sep, p 99
Bixby-Hammett DM: see Brooks WH, Nov, p 84
Blackett PR: Child and adolescent athletes with diabetes, Mar, p 133
Bracker MD: Low back pain in a tennis player (case conference), Apr, p 75
Bracker MD: Suspected Marfan syndrome in a female basketball player (case conference), Feb, p 69
Braden DS: Preparticipation screening for sudden cardiac death in high school and college athletes, Oct, p 128
Brannon D: see Yesalis CE III, Dec, p 90
Brodowski BK: see Tucker JB, Sep, p 120
Brooks WH: Prevention of neurologic injuries in equestrian sports, Nov, p 84
Buckenmeyer PJ: see Koch BM, Feb, p 139
Buckley WE: see Yesalis CE III, Dec, p 90
Burnett JW: Signs, symptoms, and management of jellyfish envenomation, Mar, p 109

Cairns DA: see Segan DJ, Oct, p 73
Campbell EA: see Jordan BD, Jan, p 87
Campbell EA: see Jordan BD, Jun, p 85
Cantwell JD: see Murray PM, Jan, p 75
Casey J: see Adner MM, Jul, p 98
Cefalu C: see Solis K, Mar, p 121
Champoux R: see Pope HG Jr, Jul, p 75
Chan K: see Pipe AL, Nov, p 53
Chmelar RD: A physiologic profile comparing levels and styles of female dancers, Jul, p 87
Clancy WG: see Schemmel SP, Sep, p 133
Clark N: Case studies in sports nutrition, Jun, p 130
Clark N: Nutrition education for elite female runners, Feb, p 124
Cohen JC: Hypercholesterolemia in male power lifters using anabolic-androgenic steroids, Aug, p 49
Collins K: Nerve injuries in athletes, Jan, p 92
Conklin RJ: Acne vulgaris in the athlete, Oct, p 57
Cornelius WL: Proprioceptive neuromuscular facilitation flexibility techniques: acute effects on arterial blood pressure, Apr, p 152
Craft-Hamm K: see Cornelius WL, Apr, p 152

Daniel WA Jr: see Feinstein RA, May, p 51
Davis JC: Decompression sickness in sport scuba diving, Feb, p 108
Day A: see Maroon JC, Aug, p 61
Devinsky O: see Jordan BD, Jun, p 85
Domm MA: see Fisher AC, Jul, p 47

Eichner ER: Circadian timekeepers in sports, Feb, p 78
Endres RK: see Stratton R, Mar, p 150
Evans W: see Clark N, Feb, p 124

Feinstein RA: A national survey of preparticipation physical examination requirements, May, p 51
Fisher AC: Adherence to sports-injury rehabilitation programs, Jul, p 47
Fitt SS: see Chmelar RD, Jul, p 87
Fleck SJ: Resistance training: basic principles (part 1 of 4), Mar, p 160
Fleck SJ: Resistance training: physiological responses and adaptations (part 2 of 4), Apr, p 108
Fleck SJ: Resistance training: physiological responses and adaptations (part 3 of 4), May, p 63
Fleck SJ: see Kraemer WJ, Jun, p 69
Folk FS: see Jordan BD, Jun, p 85
Foster C: see Solis K, Mar, p 121
Friedl KE: see Yesalis CE III, Dec, p 90
Froelich JW: Magnetic resonance imaging for meniscal tears of the knee, Aug, p 95
Fromm BS: see Tucker JB, Sep, p 120
Fukushima H: see Kono I, Jul, p 56

Galioto FM Jr: see Koch BM, Feb, p 139
Gamache FW Jr: see Jordan BD, Jun, p 85
Garfin SR: see Bracker MD, Apr, p 75
Garrick JG: see Loosli AR, Jul, p 110
Gauld M: see Walter SD, Jun, p 101
Giddings P: see Sloan JP, Aug, p 116
Gisolfi CV: Effects of wearing a helmet on thermal balance while cycling in the heat, Jan, p 139
Gomez J: see Segan DJ, Oct, p 73
Grant TT: see Mandelbaum BR, Jan, p 80
Grobler N: see Myburgh KH, Apr, p 129
Grogg EP: see Noble HB, Feb, p 95

Haga S: see Kono I, Jul, p 56
Haggar AM: see Froelich JW, Aug, p 95
Hain R: see Sloan JP, Aug, p 116
Hart LE: see Walter SE, Jun, p 101
Harvey JS: see Tanner SM, Aug, p 39
Hayes CL: see Gisolfi CV, Jan, p 139
Hellstedt JC: Kids, parents, and sports: some questions and answers, Apr, p 59
Herbert DL: see Herbert WG, Oct, p 105
Herbert WG: Legal aspects of cardiac rehabilitation exercise programs, Oct, p 105
Herrick RT: see Yesalis CE III, Dec, p 90
Holder LE: Unexplained shoulder pain in a weight lifter, Jun, p 90; (correction) Sep, p 26
Hough DO: see Rosen LW, Sep, p 140
Howe WB: Primary care sports medicine: a part-timer's perspective, Jan, p 102
Hudson PB: Preparticipation screening of Special Olympics athletes, Apr, p 97

Jackson DW: see Maywood RM, May, p 81
Jones BH: see Adner MM, Jul, p 98
Jones KL: see Bracker MD, Feb, p 69
Jordan BD: Acute injuries among professional boxers in New York State: a two-year survey, Jan, p 87
Jordan BD: Brain contusion and cervical fracture in a professional boxer (case report), Jun, p 85

Kapoor W: see Nelson PB, Oct, p 78
Karofsky PS: Is it safe to drink water from tennis ball containers?, Nov, p 97
Kasch FW: A longitudinal study of cardiovascular stability in active men aged 45 to 65 years, Jan, p 117
Kashiwagi H: see Kono I, Jul, p 56
Katz DL: see Pope HG Jr, Jul, p 75
Keates RH: Preventing eye injuries in sports: some questions and answers, Aug, p 122
Kitao H: see Kono I, Jul, p 56
Koch BM: Flexibility and strength measures in children participating in a cardiac rehabilitation exercise program, Feb, p 139
Kono I: Weight reduction in athletes may adversely affect the phagocytic function of monocytes, Jul, p 56
Kraemer WJ: Resistance training: exercise prescription (part 4 of 4), Jun, p 69
Kraemer WJ: see Fleck SJ, Mar, p 160
Kraemer WJ: see Fleck SJ, Apr, p 108
Kraemer WJ: see Fleck SJ, May, p 63
Kyle JM: Sports medicine education for rural practice, Aug, p 78

Labelle P: Eye injuries in sports: results of a five-year study, May, p 126
Leger L: Heart rate monitors: validity, stability, and functionality, May, p 143
Leonard EI: Special problems of handicapped skiers: an overview, Mar, p 77
Liebert PL: Acute posttraumatic pubic symphysis instability in an athlete, Apr, p 87

continued

Lombardo JA: Cross-country runner with pain in the dorsum of the foot, Mar, p 85
Lombardo JA: see Liebert PL, Apr, p 87
Loosli AR: Injuries in slow-pitch softball, Jul, p 110

Makalous SL: Energy expenditure during walking with hand weights, Apr, p 139
Mandelbaum BR: Wrist pain in a gymnast (case conference), Jan, p 80
Mandelbaum BR: see Otis CL, May, p 115
Maroon JC: Percutaneous automated discectomy in athletes, Aug, p 61
Marotta JJ: Arteriovenous fistula development after posterior compartment fasciotomy to treat shin splints (case report), Dec, p 55
Matsuda M: see Kono I, Jul, p 56
Maywood RM: Athletic injuries to the knee: evaluation using magnetic resonance imaging, May, p 81
McCoy HJ: see Segan DJ, Oct, p 73
McIntosh JM: see Walter SE, Jun, p 101
Mercier M: see Labelle P, May, p 126
Michael RH: see Holder LE, Jun, p 90; (correction) Sep, p 26
Michell LJ: see Lombardo JA, Mar, p 85
Moats WE: Primary care sports medicine: a full-timer's perspective, Jun, p 57
Mochizuki RM: Cardiomyopathy and cerebrovascular accident associated with anabolic-androgenic steroid use (case report), Nov, p 109
Moore BS: see Bracker MD, Feb, p 69
Murray PM: Prevalence of false-positive exercise tests in apparently normal women, Jan, p 75
Mutoh Y: Aerobic dance injuries among instructors and students, Dec, p 80
Myburgh KH: Factors associated with shin soreness in athletes, Apr, p 129

Navarude SN: see Gisolfi CV, Jan, p 139
Nelson M: see Clark N, Feb, p 124
Nelson PB: Hyponatremia in a marathoner (case report), Oct, p 78
Nichols AW: see Mandelbaum BR, Jan, p 80
Noakes TD: see Cohen JC, Aug, p 49
Noakes TD: see Myburgh KH, Apr, p 129
Noakes TD: see Sandell RC, Sep, p 86
Noble HB: The Prairie State Games: organization of medical care, Feb, p 95
Nutter P: see Collins K, Jan, p 92
Nyberg KL: see Whitley JD, Oct, p 92

O'Bryan JJ: see Tucker JB, Sep, p 120
Onik G: see Maroon JC, Aug, p 61
Orlando RG: Soccer-related eye injuries in children and adolescents, Nov, p 103
Otis CL: Tibial pain in an amenorrheic runner (case conference), May, p 115

Pascoe MD: see Sandell RC, Sep, p 86
Pearson RL: Osteitis pubis in a basketball player (case report), Jul, p 69
Peterson K: see Collins K, Jan, p 92
Pinzur MS: Wrist pain associated with 'fractured' handle weights in a tennis racket, Jul, p 120
Pipe AL: Asymptomatic heart murmur in a professional football player (case conference), Nov, p 53
Pitzer NL: see Leonard EI, Mar, p 77
Podtetenev M: see Labelle P, May, p 126
Pope HG Jr: Anabolic-androgenic steroid use among 1,010 college men, Jul, p 75
Porter M: see Noble HB, Feb, p 95
Puffer JC: see Otis CL, May, p 115

Reid DC: Spine trauma associated with off-road vehicles, Jun, p 142
Requa RK: see Loosli AR, Jul, p 110
Richmond JC: see Marotta JJ, Dec, p 55
Richter KJ: see Mochizuki RM, Nov, p 109
Rinaldo J: see Nelson PB, Oct, p 78
Rippe JM: see Pipe AL, Nov, p 53
Robinson AG: see Nelson PB, Oct, p 78
Robinson M: see Noble HB, Feb, p 95
Robison W: see Adner MM, Jul, p 98
Rohlf DP: see Gisolfi CV, Jan, p 139
Rosen LW: Pathogenic weight-control behaviors of female college gymnasts, Sep, p 140
Ross W: see Loosli AR, Jul, p 110
Ruhling RO: see Chmelar RD, Jul, p 87

Saal JA: Rehabilitation of football players with lumbar spine injury (part 1 of 2), Sep p 61
Saal JA: Rehabilitation of football players with lumbar spine injury (part 2 of 2), Oct, p 117
Saboe LA: see Reid DC, Jun, p 142
Sammarco GJ: How I manage turf toe, Sep, p 113
Sandell RC: Factors associated with collapse during and after ultramarathon footraces: a preliminary study, Sep, p 86
Sawai S: see Mutoh Y, Dec, p 80
Sayeed SA: see Gisolfi CV, Jan, p 139
Scarlet JJ: see Adner MM, Jul, p 98
Schemmel SP: Acute ulnar collateral ligament injury in a baseball pitcher, Sep, p 133
Schoene RB: High-altitude pulmonary edema: the disguised killer, Aug, p 102
Schultz BB: see Chmelar RD, Jul, p 87
Segan DJ: Weight lifting as a cause of bilateral upper extremity compartment syndrome, Oct, p 73
Shephard RJ: Does cardiac rehabilitation after myocardial infarction favorably affect prognosis?, Jun, p 116
Shepherd TA: see Chmelar RD, Jul, p 87
Sim FH: Ice hockey injuries, Mar, p 92
Simonet WT: see Sim FH, Mar, p 92
Singer SA: see Bracker MD, Apr, p 75
Skurko L: see Mutoh Y, Dec, p 80
Sladek EC: see Segan DJ, Oct, p 73
Sloan JP: Effects of cold and compression on edema, Aug, p 116
Soileau EJ: see Feinstein RA, May, p 51
Solis K: Aerobic requirements for and heart rate responses to variations in rope jumping techniques, Mar, p 121
Sonzogni WC: see Karofsky PS, Nov, p 97
Stevens H: Epistaxis in the athlete, Dec, p 31
Storey M: see Collins K, Jan, p 92
Stratton R: Acute glycemic effects of exercise in adolescents with insulin-dependent diabetes mellitus, Mar, p 150
Strong WB: see Braden DS, Oct, p 128
Superko HR: Effects of a mandatory health screening and physical maintenance program for law enforcement officers, Sep, p 99
Superko HR: The role of diet, exercise, and medication in blood lipid management of cardiac patients, Nov, p 65
Sutton JR: see Walter SE, Jun, p 101

Tawanashi Y: see Mutoh Y, Dec, p 80
Tanner SM: How we manage plantar fasciitis, Aug, p 39
Thivierge M: see Leger L, May, p 143
Thomas TR: see Makalous SL, Apr, p 139
Thompson N: see Solis K, Mar, p 121
Trudeau F: see Labelle P, May, p 126
Tucker JB: Medical coverage of high school football in New York State, Sep, p 120

Vaccaro J: see Koch BM, Feb, p 139
Vaccaro P: see Koch BM, Feb, p 139
Van Camp, SP: Exercise-related sudden death: risks and causes (part 1 of 2), May, p 96
Van Camp, SP: Exercise-related sudden death: risks and causes (part 2 of 2), Jun, p 47
Van Camp SP: see Kasch FW, Jan, p 117
Verity L: see Kasch FW, Jan, p 117
Voss J: see Superko HR, Sep, p 99

Walker RB: see Kyle JM, Aug, p 78
Wallace JP: see Kasch FW, Jan, p 117
Walter SD: Training habits and injury experience in distance runners: age- and sex-related factors, Jun, p 101
Weir D: see Karofsky PS, Nov, p 97
Whitley JD: Exercise medicine in medical education in the United States, Oct, p 92
Wilmore JH: Exercise testing, training, and beta-adrenergic blockade, Dec, p 44
Wilson DP: see Stratton R, Mar, p 150
Wilson PK: Cardiac rehabilitation: then and now, Sep p 75
Wright JE: see Yesalis CE III, Dec, p 90
Wuest DA: see Fisher AC, Jul, p 47

Yesalis CE III: Self-reported use of anabolic-androgenic steroids by elite power lifters, Dec, p 90

Zimmerman RD: see Jordan BD, Jun, p 85
Zupan MF: see Chmelar RD, Jul, p 87

continued

subjects

Adolescents
catastrophic sports injuries, 1982-87, May, p 32
diabetes need not preclude sports participation, Mar, p 133
diabetic: acute glycemic effects of exercise, Mar, p 150
female athletes, physical characteristics of, Nov, p 40
high school football injuries surveyed (NATA), Apr, p 49
high school football, medical coverage of, in New York State, Sep, p 120
preparticipation screening for sudden death in high school athletes, Oct, p 128
psychology and youth sports, Apr, p 59
soccer-related eye injuries, Nov, p 103
sports participation: AAP develops new guidelines, May, p 45; p 165
steroid use among high school football players, Aug, p 16
weight lifting: high school training programs launched in five states, May, p 34
Aerobic dance
injuries in instructors and students, Dec, p 80
Aging
cardiovascular function in active men, Jan, p 117
Kasch longitudinal study celebrated at 22nd year, Jan, p 155
obesity, creeping, prevention of, Nov, p 143
Air pollution
at Olympic Games in Seoul, May, p 171
Alcohol
New York State passes beverage control law, Dec, p 27
All-terrain vehicles
and spine injuries, Jun, p 142
Altitude
and pulmonary edema, Aug, p 102
American Academy of Orthopaedic Surgeons
knee braces may not prevent injury, Jan, p 57
American Alliance for Health, Physical Education, Recreation and Dance
fitness: schoolchildren to be tested, May, p 31
American Academy of Pediatrics
sports participation: new guidelines developed, May, p 45
American Adademy of Pediatrics Policy Statements
recommendations for participation in competitive sports, May, p 165
American College of Sports Medicine Position Statements
blood doping as an ergogenic aid, Jan, p 131
Ankle injuries
stabilizers vs taping for prevention, Jan, p 59
Arm injuries
compartment syndrome in a weight lifter, Oct, p 73
Arthroscopy
overrated? (letter), Jan, p 25
Artificial surfaces
football injuries fewer than on grass, Apr, p 41
Athletic care
medical, at endurance events (letter), Mar, p 40; (letter) Sep, p 23
medical, at Olympic Winter Games, Jan, p 160
medical, at Prairie State Games, Feb, p 95

Back
muscles, exercises for, Apr, p 189
Back injuries
lumbar spine, football, rehabilitation for, Sep, p 61; Oct, p 117
Back pain
in the cosmetic athlete (letter), Feb, p 43
percutaneous automated diskectomy for herniated lumbar disk, Aug, p 61
in a tennis player, Apr, p 75
Ballooning
hazards, Aug, p 22
Baseball
Baltimore Orioles: could sports psychology have helped during their slump?, Jun, p 42
Baseball injuries
sliding, would decrease with breakaway bases, Jul, p 123
ulnar collateral ligament, in a pitcher, Sep, p 133
Basketball injuries
osteitis pubis (case report), Jul, p 69
overview of, Dec, p 64
Bicycling
helmets: effects of, while cycling in the heat, Jan, p 139
helmets: safety standards of, Jan, p 148
in Italy, Jun, p 205
women's bicycles, Aug, p 17
Black athletes
fitness and exercise issues for, Sep, p 162
Blood
donating, and running performance, Jul, p 30
Blood doping
as ergogenic aid (ACSM position statement), Jan, p 131
Bodybuilding
steroid use and heart disease in a 32-year-old man, Nov, p 109
Body composition
athletes, large: fit or fat?, Dec, p 20
Bone
electric stimulation for nonunion fractures, Jun, p 155
Bowling
injuries, Apr, p 173
Boxing injuries
acute, in New York professionals, 1982-1984, Jan, p 87
brain contusion and cervical fracture (case report), Jun, p 85
Brain injury
contusion, in a boxer, Jun, p 85

Canada
court decision: girls may play on boys' teams, Aug, p 20
Cancer
intraocular, in swimmers (letter), Oct, p 15
Cardiac rehabilitation
exercise for children after surgery, Feb, p 139
exercise for myocardial infarction, Jun, p 116
home-based programs, Apr, p 56
legal aspects of exercise programs, Oct, p 105
overview, Sep, p 75
Cheerleading
athletic activity, not a sport (letter), Jan, p 25
Children in sports
AAHPERD to test for fitness, May, p 31
AAP develops new guidelines for participation, May, p 45; p 165
America's youth: are they really unfit?, Oct, p 145
diabetes need not preclude participation, Mar, p 133
exercise rehabilitation after heart surgery, Feb, p 139
female athletes, physical characteristics of, Nov, p 40
fitness programs: more are needed for the average child, Oct, p 39
obesity and TV viewing, Nov, p 117
psychology and youth sports, Apr, p 59
soccer-related eye injuries, Nov, p 103
strength training for prepubescents: safety of, Jan, p 60
Circadian rhythms
jet lag: minimizing the effects for athletes at Olympic Summer Games, May, p 176
in sports, Feb, p 78
Clinics and centers
primary care physicians as medical directors, Jun, p 57
Coaching
national standards for certification needed, Nov, p 124
Compartment syndrome
fasciotomy followed by arteriovenous fistula in a runner, Dec, p 55
upper extremity, in a weight lifter, Oct, p 73
Contusions
in basketball players, Dec, p 64
Cryotherapy
and edema, Aug, p 116

Dance
physiologic profile of female dancers, Jul, p 87
Death
in cave diving, Aug, p 15
football fatalities decrease in 1987, Feb, p 55
Maravich, Pete, Mar, p 49
sudden cardiac, preparticipation screening for in high school and college athletes, Oct, p 128
sudden, exercise-related, May, p 96; Jun, p 47
continued

Dehydration
and sweating, Jul, p 144
Diabetes
aerobic exercise ineffective for non-insulin-dependent patients, Feb, p 55
and exercise: acute glycemic effects in adolescents, Mar, p 150
sports participation for children and adolescents, Mar, p 133
Diagnostic imaging
magnetic resonance imaging, for knee injuries, May, p 81
for meniscus tears of the knee, Aug, p 95
radionuclide bone imaging, for shoulder pain, Jun, p 90; (correction) Sep p 26
Directories
fellowships, sports medicine, for primary care physicians, Oct, p 155
injury statistics resource list, Apr, p 183
Diving
boards disappearing; liability crisis cited, Mar, p 70
Diving injuries
deaths in cave diving, Aug, p 15
decompression sickness, Feb, p 108
jellyfish envenomation, Mar, p 109
Drug testing
legal aspects, Feb, p 165
mandatory, should be eliminated (letter), Jun, p 32
NCAA voluntary, off-season testing for steroids, Apr, p 49
at Olympic Summer Games, Sep, p 158; Dec, p 118
overview of, Feb, p 155
steroids: off-season use determined (NCAA), Nov, p 40
Drugs
abuse in female athletes, Apr, p 44
abuse in sports: toward a solution, Feb, p 47
ban on birth control drug rescinded, Feb, p 175
beta-blockers and exercise: a review, Dec, p 44
L-carnitine unproven as ergogenic aid, Mar, p 74

Ear injuries
noise at Metrodome may cause damage, Mar, p 68
in surfing (letter), Feb, p 46
Eating disorders
in female college gymnasts, Sep, p 140
Edema
cold and compression, effects of, Aug, p 116
pulmonary, at high altitudes, Aug, p 102
Elbow injuries
bowlers get tennis elbow too, Apr, p 173
ulnar collateral ligament, in a baseball pitcher, Sep, p 133
Electrical stimulation
nonunion fractures, Jun, p 155
Emergencies
fans at sports events need medical coverage too, Mar, p 194
Equipment
baseball: breakaway bases would decrease sliding injuries, Jul, p 123
bicycle helmets: effects of, while cycling in the heat, Jan, p 139
bicycle helmets: safety standards of, Jan, p 148
bicycles for women, Aug, p 17
for eye protection, Aug, p 122
eyewear, to prevent intraocular cancer in swimmers (letter), Oct, p 15
hand weights, for walking, Apr, p 139
heart rate monitors tested, May, p 143
knee braces may not prevent injury (AAOS), Jan, p 57
knee braces, prophylactic, in football, Dec, p 102
monitoring physical activity: new tools, Jun, p 160
protective, for equestrian sports, Nov, p 84
tennis racket: 'fractured' handle weights cause wrist pain (case report), Jul, p 120
Ergogenics
amino acid supplements, Mar, p 221
human growth hormone: federal control needed, Mar, p 189; (letter) Aug, p 158
human growth hormone: the latest aid?, Mar, p 175
L-carnitine unproven as aid, Mar, p 74
Ethics
human growth hormone as ergogenic aid, Mar, p 175
human growth hormone: federal control needed, Mar, p 189; (letter) Aug, p 158
Exercise
for abdominal muscles, Feb, p 201
aerobic: ineffective for non-insulin-dependent diabetics, Feb, p 55
for back muscles, Apr, p 189
and beta-blockers: a review, Dec, p 44
black Americans, issues for, Sep, p 163
and bradycardia, May, p 180
and cardiovascular function in aging men, Jan, p 117
and eating, timing of, Jan, p 184
and estrogen (an overview), May, p 152
jumping rope: aerobic requirements of, Mar, p 121
and longevity, Aug, p 15
for neck muscles, Jun, p 213
plyometric: risks, benefits not yet proven, Mar, p 212; (letter) Jul, p 20
and pregnancy, Jan, p 61
for shoulder muscles, Aug, p 163
and stress (letter), Apr, p 54; Jun, p 185
and sudden death, May, p 96; Jun, p 47
and sudden death: the Maravich tragedy, Mar, p 49
walking with hand weights, Apr, p 139
Exercise testing
beta-blockers and training, Dec, p 44
false-positive results in women, Jan, p 75
stress testing: an overview, Mar, p 245
Eye injuries
cancer, intraocular, in swimmers (letter), Oct, p 15
prevention of, Aug, p 122
and protection (FIMS position statement), Nov, p 49
soccer-related, in children and adolescents, Nov, p 103
in sports: five-year study in Quebec, May, p 126
in surfing (letter), Feb, p 46

Facial injuries
nosebleed, Dec, p 31
Female athletes
bicycles for women, Aug, p 17
Canadian court: girls may play on boys' teams, Aug, p 20
drug abuse, Apr, p 44
eating disorders, Sep, p 140
exercise and pregnancy, Jan, p 61
low back pain in the cosmetic athlete (letter), Feb, p 43
nutrition education for elite runners, Feb, p 124
physical characteristics of children and adolescents, Nov, p 40
weight lifting, medical aspects of, Apr, p 163
Finger injuries
bowler's thumb, Apr, p 173
Flexibility
proprioceptive neuromuscular facilitation techniques and blood pressure, Apr, p 152
Foot injuries
plantar fasciitis, Aug, p 39
tarsal navicular stress fracture in a runner, Mar, p 85
turf toe, Sep, p 113
Football
high school, medical coverage of, in New York State, Sep, p 120
Football injuries
fatalities decrease in 1987, Feb, p 55
frequency higher on grass than artificial turf, Apr, p 41
high school (NATA survey), Apr, p 49
knee braces, prophylactic, Dec, p 102
lumbar spine, rehabilitation for, Sep, p 61; Oct, p 117
major, decrease in (New York Jets study), Nov, p 37
pubic symphysis instability (case report), Apr, p 87
Fractures
nonunion, and electric bone-growth stimulators, Jun, p 155
stress, of the foot, Mar, p 85
stress, of the tibia, in an amenorrheic runner, May, p 115

Gastrointestinal function
Seoul food at Olympic Summer Games, May, p 179
water bottle: sharing may spread infection, Jul, p 29; (letter) Oct, p 15
Golf
in Scotland, Aug, p 139
Government agencies
California Highway Patrol initiates health main-
continued

tenance program, Sep, p 99
Governor's Council on Physical Fitness and Sports
nutrition and fitness discussed at conference, Jun, p 42
Gymnastics
eating disorders among females, Sep, p 140

Handicapped athletes
competition with able-bodied athletes allowed (court decision), Oct, p 34
skiers, problems of, Mar, p 77; (letter) Jul, p 17
Special Olympics preparticipation screening, Apr, p 97
Head injuries
in equestrian sports, Nov, p 84
Headache
in athletes, Oct, p 169
Health promotion
fitness programs: more are needed for the average child, Oct, p 39
physical maintenance program, California Highway Patrol, effects of, Sep, p 99
Heart
cardiovascular function in active aging men, Jan, p 117
fatigue of, in endurance athletes, Apr, p 46
Heart disease
asymptomatic murmur in a football player, Nov, p 53
beta-blockers and exercise: a review, Dec, p 44
blood lipid management of cardiac patients, Nov p 65
cardiac rehabilitation; home-based programs, Apr, p 56
exercise for myocardial infarction, Jun, p 116
exercise rehabilitation for children after surgery, Feb, p 139
exercise and sudden death, May, p 96; Jun, p 47
Maravich tragedy: exercise and sudden death, Mar, p 49
and steroid use in a bodybuilder, Nov, p 109
steroid use may increase risk, Feb, p 56
Heart rate
bradycardia, exercise, and fitness, May, p 180
and jumping rope: responses to various techniques, Mar, p 121
monitors tested, May, p 143
taking your exercise and resting pulse, Sep, p 180
Heat stress
and sweating, Jul, p 144
Hockey injuries
eye, May, p 126
an overview, Mar, p 92
Horseback riding
neurologic injuries, prevention of, Nov, p 84
Hypertension
black Americans, exercise, and stress, Sep, p 162
Hyponatremia
in a marathoner, Oct, p 78
sports-related (letter), Mar, p 40; (letter) Sep, p 23

Ice skating
elite figure skaters hone their performances, Feb, p 180
Industry fitness
for law enforcement officers (California Highway Patrol), Sep, p 99
Infectious disease
tennis ball containers: safe receptacles for drinking water?, Nov, p 97
water bottle: sharing may spread infection, Jul, p 29; (letter) Oct, p 15
Injuries
violence-related, among fans at sports events, Mar, p 202
International Federation of Sports Medicine (FIMS)
eye injuries, protection (position statement), Nov, p 49

Jumping rope
aerobic requirements of, Mar, p 121

Kasch, Fred W.
longitudinal study celebrated at 22nd year, Jan, p 155
Knee injuries
arthroscopy: overrated? (letter), Jan, p 25
braces, prophylactic, may not be effective (AAOS), Jan, p 57
braces, prophylactic, in football, Dec, p 102
magnetic resonance imaging for evaluation of, May, p 81
meniscus tears, MRI for diagnosis of, Aug, p 95
sprains, in Alpine skiing, Dec, p 24

Law and legal medicine
Canadian court: girls may play on boys' teams, Aug, p 20
cardiac rehabilitation exercise programs, Oct, p 105
drug testing programs face challenges, Feb, p 165
handicapped athletes may compete with able-bodied (Illinois federal court), Oct, p 34
Leg injuries
crutches not always advisable, Jun, p 40
shin soreness and associated factors, Apr, p 129
stress fracture, tibial, in an amenorrheic runner, May, p 115
Lipids
blood, management of, in cardiac patients, Nov, p 65
cholesterol levels altered in power lifters using steroids, Aug, p 49

Marathons
Boston, medical coverage, Jul, p 98; p 139
collapse during/after, Sep, p 86
medical coverage of (letter), Mar, p 40; (letter) Sep, p 23
Maravich, Pete
death of, Mar, p 49
Marfan's syndrome
suspected, in a female basketball player, Feb, p 69
Menstruation
exercise and estrogen (an overview), May, p 152
Minorities
black Americans, fitness and exercise issues for, Sep, p 162

National Athletic Trainers' Association
high school football injuries surveyed, Apr, p 49
National Collegiate Athletic Association
steroids included in voluntary off-season drug testing, Apr, p 49
steroid use off-season determined, Nov, p 40
study: football injuries more frequent on grass than artificial turf, Apr, p 41
Nerves
injuries in athletes, Jan, p 92
Nutrition
amino acids as ergogenic aid, Mar, p 221
counseling for weight loss/gain, Jun, p 130
education for elite female runners, Feb, p 124
exercise and eating, timing of, Jan, p 184
and fitness: experts speak at conference, Jun, p 42

Obesity
creeping, prevention of, Nov, p 143
and TV addiction in children, Nov, p 117
Olympic Games
ban on birth control drug rescinded, Feb, p 175
figure skaters hone their performances, Feb, p 180
medical aspects of Summer Games (reflections), Dec, p 118
medical coverage, drug and sex tests at the Summer Games, Sep, p 147
medical coverage of Winter Games, Jan, p 160
Seoul: modern city, modern Games, May, p 168
skiing, freestyle: demonstration event at Calgary, Feb, p 189
Special, preparticipation screening for, Apr, p 97
training center in Colorado Springs helps athletes improve performance, Jul, p 127
USOC considers training center in San Diego, Apr, p 48
Osteoporosis
exercise and estrogen (an overview), May, p 152
Overuse injuries
foot, in a runner, Mar, p 85

Pain
wrist, in a gymnast, Jan, p 80
Pelvis
osteitis pubis in a basketball player, Jul, p 69
pubic symphysis instability in an athlete, Apr, p 87

continued

Perceived exertion
new applications for a standard measurement tool, Oct, p 174
Performance
running, and donating blood, Jul, p 30
Physicians
at Olympic Games, Jan, p 160
primary care, and sports medicine, Jan, p 41; p 102; Jun, p 57
sports medicine: establishing an identity, Aug, p 31
Physiologic studies
aging active men: cardiovascular function, Jan, p 117
dancers, female, Jul, p 87
Preparticipation physical examinations
guidelines developed by AAP, May, p 45; p 165
requirements assessed in 45 states, May, p 51
screening for sudden cardiac death in high school and college athletes, Oct, p 128
of Special Olympics athletes, Apr, p 97
Psychology
adherence to rehabilitation programs, Jul, p 47
Baltimore Orioles: could it have helped during their slump?, Jun, p 42
stress and exercise, Jun, p 185
and team physicians: part of the job, Sep, p 177
youth sports, Apr, p 59

Racket sports
eye guards for, Aug, p 122
eye injuries in, May, p 126
Rehabilitation:
adherence to programs, Jul, p 47
crutches not always advisable for lower-limb injuries, Jun, p 40
football players with lumbar spine injury, Sep, p 61; Oct, p 117
turf toe, non-weight-bearing exercise for, Sep, p 116
Roentgenograms: see Diagnostic imaging
Rugby
injuries, catastrophic, will decrease with new rule changes, Oct, p 29
Running
donating blood, effects of, Jul, p 30
nutrition education for elite female runners, Feb, p 124
Running injuries
hyponatremia (case report), Oct, p 78
plantar fasciitis, Aug, p 39
stress fracture, tibial, in an amenorrheic runner, May, p 115
tarsal navicular stress fracture, Mar, p 85
and training (age- and sex-related factors), Jun, p 101

Safety
ban on three-wheeled ATVs: is it enough?, Mar, p 67
surfing (letter), Feb, p 46
Scuba diving
decompression sickness, Feb, p 108
Shin splints
fasciotomy followed by arteriovenous fistula in a runner, Dec, p 55
Shoulder injuries
osteoid osteoma in a weight lifter, Jun, p 90; (correction) Sep, p 26
rotator cuff problems: causes and treatments, Aug, p 128
Ski injuries
knee sprains, Dec, p 24
Skiing
freestyle, demonstration event at Winter Games, Feb, p 189
handicapped, Mar, p 77; (letter) Jul, p 17
pulmonary edema at high altitudes, Aug, p 102
Skin diseases
acne vulgaris in the athlete, Oct, p 57
Soccer injuries
eye, in children and adolescents, Nov, p 103
Softball
slow-pitch, injuries, Jul, p 110
Spectator sports
fans at events need medical coverage too, Mar, p 194
violence, injuries among fans at sports events, Mar, p 202
Spine injuries
cervical fracture in a boxer, Jun, p 85
and off-road vehicles, Jun, p 142
Sports injuries
catastrophic, Sep, p 47; (letter) Nov, p 44
catastrophic: not limited to football (1982-87 survey), May, p 32
statistics: resource list, Apr, p 183
Sports medicine
black Americans, fitness and exercise issues for, Sep, p 163
catastrophic injuries discussed, Sep, p 47
Cleveland Clinic symposium provides broad range of practical information, Sep, p 47
coverage at Boston Marathon, Jul, p 98; p 139
coverage of high school football in New York State, Sep, p 120
coverage at Olympic Winter Games, Jan, p 160
coverage at Prairie State Games, Feb, p 95
education for rural practice, Aug, p 78
fans at sports events need medical coverage, too, Mar, p 194
fellowships for primary care physicians, Oct, p 155
in medical education in the United States, Oct, p 92
THE PHYSICIAN AND SPORTSMEDICINE: first 15 years, Jun, p 170
physicians: establishing an identity, Aug, p 31
primary care: a full-timer's perspective, Jun, p 57
the primary care perspective, Jan, p 41; p 102
Sprains
in basketball players, Dec, p 64
knee, in Alpine skiing, Dec, p 24
Steroids
addiction documented in a bodybuilder, Dec, p 22
and heart disease in a bodybuilder, Nov, p 109
and hypercholesterolemia in male power lifters, Aug, p 49
immunity and lipids, effects on, Feb, p 56
NCAA does voluntary, off-season testing, Apr, p 49
at Olympic Summer Games 1988, Dec, p 118
use among elite power lifters, Dec, p 90
use among high school football players, Aug, p 16
use among 1,010 college men, Jul, p 75
use of, off-season, determined (NCAA), Nov, p 40
Strength
abdominal muscles, exercises for, Feb, p 201
arm (lower) muscles, exercises for, Dec, p 157
arm (upper) muscles, exercises for, Oct, p 181
back muscles, exercises for, Apr, p 189
neck muscles, exercises for, Jun, p 213
resistance training: basic principles of, Mar, p 160
resistance training: physiologic effects of, Apr, p 108; May, p 63; Jun, p 69
shoulder muscles, exercises for, Aug, p 163
Stress
and exercise (letter), Apr, p 54
Stress fractures
in basketball players, Dec, p 64
Strains
in basketball players, Dec, p 64
Surfing
medical aspects of (letter), Feb, p 46
Surgery
arthroscopic: overrated? (letter), Jan, p 25
percutaneous automated diskectomy for herniated lumbar disk, Aug, p 61
Surveys and polls
catastrophic sports injuries, high school and college, 1982-87, May, p 32
coaches' perceptions of steroid use among high school football players, Aug, p 16
preparticipation physical examination requirements assessed for 45 states, May, p 51
steroid use among 1,010 college men, Jul, p 75
steroid use among power lifters may be underreported, Dec, p 90
Swimming
bicarbonate may cut fatigue, Sep, p 52
Swimming injuries
jellyfish envenomation, Mar, p 109

Taping
and ankle stabilizers compared, Jan, p 59
Team physicians
job description, Jan, p 169
psychology is part of the job, Sep, p 177
at work, Jan, p 177
Tendinitis
wrist and finger, from bowling, Apr, p 173
Tennis injuries
back pain (case conference), Apr, p 75
wrist pain caused by 'fractured' handle weights in racket (case report), Jul, p 120

continued

abstracts

subject index continued

Testing procedures
and injuries in distance runners (age- and sex-related factors), Jun, p 101
monitoring physical activity: new tools, Jun, p 160
Tobacco
smoking banned at Stanford University outdoor events, Sep, p 54
Training
and collapse during/after marathons, Sep, p 86
Olympic: Colorado Springs center helps athletes improve performance, Jul, p 127
plyometric: risks, benefits not yet proven, Mar, p 212; (letter) Jul, p 20
Travel
Dominican Republic, Mar, p 229
Italy: bicycling in Umbria, Jun, p 205
Scotland: golf, Aug, p 139
Triathlons
heart-muscle fatigue in endurance athletes, Apr, p 46
medical coverage of (letter), Mar, p 40; (letter) Sep, p 23

Violence
spectator, at sports events, Mar, p 202

Walking
forms of, Aug, p 145
with hand weights, Apr, p 139
Water sports
ocean: jellyfish envenomation a potential hazard, Mar, p 109
Weight lifting
compartment syndrome, upper extremity (case report), Oct, p 73
high school training program launched in five states, May, p 34
osteoid osteoma (case report), Jun, p 90; (correction) Sep, p 26
steroid use among power lifters, Dec, p 90
steroid use and hypercholesterolemia in men, Aug, p 49
women's: medical aspects, Apr, p 163
Weight reduction
exercise and nutrition important, Dec, p 22
and monocytes, phagocytic function of, Jul, p 56
Weight training
basic principles of, Mar, p 160
physiologic effects of, Apr, p 108; May, p 63; Jun, p 69
for prepubescents: safety of, Jan, p 60
Weights
hand-carried, while walking, Apr, p 139
Wilderness
tick-borne diseases and thermal disorders, Jul, p 32
Wrist injuries
tear in triangular fibrocartilage complex in a gymnast, Jan, p 80

Illustration: Terry Boles © 1988

Hemolysis from footstrike during running confirmed

The relationship between foot-impact force during running and the degree of change in markers of intravascular hemolysis was examined in 14 adult male runners (range, 20 to 41 years). Foot-impact force during running was quantified, and blood samples were taken 15 minutes before and one and two hours after two treadmill tests involving running for approximately one hour at 215 $m \cdot min^{-1}$ or 10,000 footstrikes; one test was downhill at a 6% grade, and one was uphill at a 6% grade. Measurements at rest were also taken. Plasma free hemoglobin significantly increased after both downhill and uphill exercise; the increase was significantly greater in the downhill trial in which mean foot-impact force was greatest. Haptoglobin concentrations significantly decreased after exercise in both trials, and remained significantly lower than preexercise levels in the downhill trial after two hours. This evidence indicates that hemolysis does occur with prolonged submaximal treadmill running, particularly downhill. The authors conclude that since foot-impact force was greater during downhill running, mechanical trauma to RBCs at footstrike is a major cause of hemolysis during running.

Miller BJ, Pate RR, Burgess W: Foot impact force and intravascular hemolysis during distance running. ***Int J Sports Med*** *1988;9(1):56-60*

Smoking has direct deleterious effect on endurance capacity

The relationship among smoking, alcohol consumption, and endurance capacity was analyzed using data from two Swiss surveys. Detailed data were obtained from a 20% random sample of all 19-year-old army conscripts (n = 6,592) and from 4,358 male participants in a 16-km race. At registration, the conscripts were given a standard fitness test that included an 80-m sprint and a 12-minute endurance run. Conscripts who smoked had reduced performances in both the sprint and the run compared with those who did not smoke, and this relationship was inversely related to amount and length of cigarette smoking. Drinking was negatively correlated with performance. The racers also demonstrated a relationship between smoking and a reduction in endurance capacity, even though only 6.9% smoked and fewer than one third of these (n = 85) were heavy smokers (> 20 cigarettes daily). Alcohol consumption was also significantly correlated to 16-km time; however, when multivariate analysis controlled for training, smoking was independently, negatively correlated with endurance capacity, but alcohol was no longer correlated. The lower levels of training among smokers in both study groups did not explain their lower endurance capacity compared with nonsmokers. The authors conclude that smoking has a direct deleterious effect on endurance capacity.

Marti B, Abelin T, Minder CE, et al: Smoking, alcohol consumption, and endurance capacity: an analysis of 6,500 19-year-old conscripts and 4,100 joggers. ***Prev Med*** *1988;17:79-92*